

# Notice of Allowability

Application No.

09/474,631

Examiner

Beth Van Doren

Applicant(s)

SAMRA ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to after-final amendment received 09/15/2005.
2. ☒ The allowed claim(s) is/are 1-22.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

TARIQ R. HAFIZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600

### DETAILED ACTION

1. The following statement of reasons for allowance is in response to communications received on 09/15/2004. Claims 1, 9, and 20 have been amended. Claims 1-22 are now pending in this application and are allowed.

#### *Reasons for Allowance*

2. Claims 1-22 are allowed.

3. The following is an examiner's statement of reasons for allowance: None of the prior art of record, taken individually or in any combination, teach, inter alia, teach providing a plurality of risk models and marketing models, the marketing models including a net present value/profitability model, a prospect pool model, a net conversion model, an attrition model, a response model, a revolver model, a balance transfer model, and a reactivation model, embedding the models within a targeting engine, determining a sequential order for combining the models, combining the models in the determined sequential order to generate market campaign data including a target group by defining an initial customer group that includes a list of customers satisfying each of the combined models and rank ordered by projected profitability.

The prior art references most closely resembling the Applicant's claimed invention are GE Capital (disclosed by the website [www.ge.com/capital/globalfinance](http://www.ge.com/capital/globalfinance) retrieved from archive.org on 06/06/1997 and the article "Customers go live with Oracle Applications Release 11" from PR Newswire, dated 10/27/1998 ), Honarvar (U.S. 6,321,206), *Building Data Mining Applications for CRM* (Thearling et al.), Thearling (U.S. 6,240,411), Jackson et al. (*Strategic Database Marketing*).

First, GE Capital discloses providing credit and insurance services to retailers and consumers around the world. Oracle applications are utilized with the systems of GE Capital. The services offered, include marketing support. The system identifies and targets customer groups using technology-based systems that produce proprietary, segmented databases. Marketing experts then work with the retailer customers to evaluate the segments and develop promotions aimed at customer groups identified with high sales potential. The evaluation of the segments define profitable segments and cross sale opportunities as well as helping to develop marketing programs tied to lifecycles by analyzing customer demographics, purchase, promotion, and payment behavior. The effectiveness is tracked. GE Capital further discusses the concept of customer focus and looking at a customer's situation from every angle by looking at the total picture of the customer. However, GE Capital does not expressly disclose providing a plurality of risk models and marketing models, the marketing models including a net present value/profitability model, a prospect pool model, a net conversion model, an attrition model, a response model, a revolver model, a balance transfer model, and a reactivation model, or embedding the models within a targeting engine.

Second, Honarvar discusses evaluating marketing campaign data using databases, stored procedures, and On Line Analytical Processing (OLAP) multidimensional structures. A plurality of models (functions/mechanisms) are provided and are applied independently to the data, these models including attrition, risk, and profitability (likelihood of an accepted offer). The models are embedded and combined in a sequential order (function set) to define the group. The customers are separated into groups based on projected profitability and at least risk. The ordering of customers includes a high, middle, and low end, and the system tries to maximize the

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persons with the most likelihood of a profitable return. The model is later evaluated to determine the performance per segment and category over time. User trends are analyzed and defined.

However, Honarvar does not expressly disclose providing a plurality of risk models and marketing models, the marketing models including all of a net present value/profitability model, a prospect pool model, a net conversion model, an attrition model, a response model, a revolver model, a balance transfer model, **and** a reactivation model, and then embedding these models in a determined sequential order.

*Building Data Mining Applications for CRM* discloses applying predictive models to new customer data. The application of models is broken down into subprocesses, each of which involves creating models for each of the different available offers. A target group is defined and higher-level business views of the results such as segmentation analysis, the construction of descriptive rules, or ROI and profitability analysis are available to critic the results. Models are constructed and evaluated by use of a visual lift chart that is built automatically so that the user easily identifies the class of models that provide the best predictive accuracy and performance. The performance of the models and the average revenue per customer are evaluated over time. However, *Building Data Mining Applications for CRM* does not expressly disclose providing a plurality of risk models and marketing models, the marketing models including all of a net present value/profitability model, a prospect pool model, a net conversion model, an attrition model, a response model, a revolver model, a balance transfer model, **and** a reactivation model, and further does not disclose embedding these models and combining the models in a determined sequential order.

Next, Thearling discusses the benefits of data mining and also provides a plurality of analytic models including marketing models, these models stored in a model library and used to evaluate a query in concerning campaign management. A model evaluator is utilized to evaluate the used model combinations. Model scores are documented and saved and later used to identify scores in the trends. However, Thearling does not expressly disclose providing a plurality of risk models and marketing models, the marketing models including all of a net present value/profitability model, a prospect pool model, a net conversion model, an attrition model, a response model, a revolver model, a balance transfer model, **and** a reactivation model, and further does not discloses embedding these models and combining the models in a determined sequential order.

Finally, Jackson et al. discloses database marketing techniques, including sorting and segmenting the data stored in the database based on a number of characteristics. A database is maintained with past data about customers (buying patterns, past purchases, time of purchases, etc.). Multiple models are built using this historical data to predict customer behavior. For example, two models would be built, one representing a customer's likelihood to respond to an offer, the second representing the customer's risk factor. The system determines a process and order for bringing together the predicted customer profiles to define a target group. The system arranges the profiled customers into a list separated into, for example, deciles. The list is rank ordered by probable profitability based on the customer's probable response. The list is organized from high profit to low and broken into sections. There is a profitability baseline that serves as a boundary for the target group. However, Jackson et al. does not expressly disclose providing a plurality of risk models and marketing models, the marketing models including all of

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a net present value/profitability model, a prospect pool model, a net conversion model, an attrition model, a response model, a revolver model, a balance transfer model, **and** a reactivation model.

4. Any comments considered necessary by the Applicant must be submitted by no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statements for Reasons for Allowance".

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Anderson et al. (U.S. 5,974,396) teaches gathering and analyzing consumer data, grouping the consumers into clusters based on this data, and targeting these consumers.

Walter et al. (U.S. 6,334,110) discloses capturing characteristic data of consumer transactions, using this data to perform marketing, and analyzing the effectiveness of the marketing.

Chou et al. (U.S. 6,061,658) discloses using data mining techniques on stored customer data in order to perform marketing efforts.

Blume et al. (U.S. 6,839,682) discloses predictive modeling of consumer financial behavior and using techniques to improve the predictions.

Chen et al. (U.S. 2003/0097292) discloses a risk model and the profitability of certain target markets.

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Jones et al. (WO 99/22328) discloses targeted marketing and the net present value of the offer made.

Melchione et al. (WO 97/15023) teaches using data stored in a database to improve marketing campaigns.

Saarevirta ("Data Mining to Improve Profitability") discloses using data mining to convert data in a database to a decision support tool, including considering risk, life-time value, response, profit, etc.

"Database Marketing: Improving Service and Profitability" (American Banker) discloses database marketing and constructing a comprehensive marketing profile per customer (considering also profitability), which is used to form customer segments to improve retention, increase sales and profits, and lower costs.

Morrison ("Target Marketing with Logit Regression") discloses a modeling framework for target marketing that includes scoring and ranking customers based on profile characteristics and revising the model over time.

Bort ("Data Mining's Midas Touch") discloses the use of predictive modeling using data mining to identify attrition, etc. in the banking industry.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Van Doren whose telephone number is (571) 272-6737. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*bvd*

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September 23, 2005

  
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